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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 10/799,757 | 03/15/2004 | Jun Nakano | 26055 | 2045 |

20529 7590 02/16/2007
NATH & ASSOCIATES
112 South West Street
Alexandria, VA 22314

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| EXAMINER |
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BIBBINS, LATANYA

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| ART UNIT | PAPER NUMBER |
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2627

| SHORTENED STATUTORY PERIOD OF RESPONSE | MAIL DATE | DELIVERY MODE |
|--|------------|---------------|
| 2 MONTHS | 02/16/2007 | PAPER |

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

| | | | |
|------------------------------|-----------------|--------------|--|
| Office Action Summary | Application No. | Applicant(s) | |
| | 10/799,757 | NAKANO, JUN | |
| | Examiner | Art Unit | |
| | LaTanya Bibbins | 2627 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A. SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 2 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 March 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☒ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 2 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1 and 2 is/are allowed.
- 6) ☐ Claim(s) _____ is/are rejected.
- 7) ☒ Claim(s) 1 and 2 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Claim Objections

2. Claims 1 and 2 are objected to because of the following informalities:
 - a. Claims 1 and 2 recite "more sufficient room **that** a predetermined working distance of the objective lens" in lines 18-20 and 25-26 respectively. Replacing "that" with "than" is suggested.Appropriate correction is required.

Allowable Subject Matter

Claims 1 and 2 are allowed.

Regarding claims 1 and 2, while the prior art teaches a focus searching method and/or an optical disc device "storing in advance a temporarily set lens bottom point voltage corresponding to a temporarily set lens bottom point temporarily set at a lower position that has more sufficient room that a predetermined working distance of the objective lens, and a temporarily set lens top point voltage corresponding to a temporarily set lens top point temporarily set at a position slightly before the objective lens abuts on the beam incident surface of the optical disc and obtaining a focus search driving voltage corresponding to the signal surface of the optical disc based on the

detection information from the photodetector when the objective lens is focused on the signal surface of the optical disc in the middle of raising or lowering the objective lens placed on standby at the lens midpoint between the temporarily set lens bottom point and the temporarily set lens top point based on the temporarily set lens bottom point voltage and a temporarily set lens top point voltage," none of the references of record, alone or in combination, suggest or fairly teach a focus searching method and/or an optical disc device **"obtaining a lens bottom point voltage and a lens top point voltage at the time of device starting by an arithmetic operation program based on the focus search driving voltage and a predetermined factor, and setting the lens bottom point corresponding to the lens bottom point voltage to be nearer to the lens midpoint side than the temporarily set lens bottom point while setting the lens top point corresponding to the lens top point voltage to be nearer to the lens midpoint side than the temporarily set lens top point"** in such a manner that a rejection under 35 U.S.C. 102 or 103 would be proper.

Citation of Relevant Prior Art

3. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Shimamura et al. (US PGPub Number 2001/0026506 A1) discloses a disc player and focus search control method with a storage section that contains a focus search table which stores waveform information in order to selectively set a plurality of focus search signals (see the discussion in paragraphs [0036], and [0047]-[0049] and

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Figures 4(a) to 4(c) where the focus search table contains predetermined peak, bottom, and central voltages which correspond to the respective focus positions of the objective lens; the peak and bottom voltages are equivalent to the claimed temporarily set lens top point and bottom point voltages and a focus search signal generating section which generates a focus search signal based on the selected waveform and supplies the generated focus search signal to the driver (see paragraph [0038]). Shimamura, however, fails to teach setting the lens bottom point corresponding to the lens bottom point voltage to be nearer to the lens midpoint side than the temporarily set lens bottom point while setting the lens top point corresponding to the lens top point voltage to be nearer to the lens midpoint side than the temporarily set lens top point.

Kelbas et al. (US PGPub Number 2004/0130980 A1) discloses an adaptive focusing method and apparatus where

the pickup head falls from the optical disc to a minimum value of a focus drive signal and rises close to the optical disc and then to a maximum allowable value of the focus drive signal during a focus search operation. When the pickup head reaches the maximum allowable value of the focus drive signal, the pickup head falls from the optical disc to a minimum allowable value of the focus drive signal (see Figure 4 and the discussion in paragraph [0036] where FODTOPMARGN and FOTBOTMARGN correspond to maximum and minimum values of a focus drive signal and are equivalent to the claimed temporarily set lens top point and bottom point voltages). There are also FOUT_MAX and FOUT_MIN which correspond to maximum and minimum focus search voltages. Kelbas, however, fails to teach setting the lens bottom point corresponding to

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the lens bottom point voltage to be nearer to the lens midpoint side than the temporarily set lens bottom point while setting the lens top point corresponding to the lens top point voltage to be nearer to the lens midpoint side than the temporarily set lens top point.

Conclusion

4. This application is in condition for allowance except for the following formal matters: claims 1 and 2 contain minor informalities as discussed above.

Prosecution on the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

A shortened statutory period for reply to this action is set to expire **TWO MONTHS** from the mailing date of this letter.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to LaTanya Bibbins whose telephone number is (571) 270-1125. The examiner can normally be reached on Monday through Friday 7:30 am - 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wayne Young can be reached on 571 272-7582. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only.

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For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



LaTanya Bibbins



WAYNE YOUNG
SUPERVISORY PATENT EXAMINER